PB 279 177

TOXICOLOGY AND APPLIED PHARMACOLOGY, 8(2):337, March 1966

PUBLICATION

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PESTICIDES PROGRAM
National Communicable Disease Center
Atlanta, Ga. 30333

9. *Chlorinated Insecticides in Human Serum.* WILLIAM E. DALE, AUGUST CURLEY, CIPRIANO CUETO, and WAYLAND J. HAYES, JR., Toxicology Section, Communicable Disease Center, Public Health Service, U.S. Department of Health, Education, and Welfare, Atlanta, Georgia.

The concentration and distribution of chlorinated insecticides and related materials in the blood of 10 women who had not had any occupational exposure to insecticides were determined by electron capture gas chromatography. The hexane-extractable chlorinated insecticides and related materials found in serum were *p,p'*-DDT (0.0077 ppm), *o,p'*-DDT (0.0016 ppm), *p,p'*-DDE (0.0152 ppm), β-BHC (0.0042 ppm), dieldrin (0.0013 ppm), and heptachlor epoxide (0.0008 ppm). The mean concentrations of these materials found in serum were greater than those found in the plasma, red blood cells, or whole blood. A comparison of the levels of insecticides in the serum of women with those of men (Dale *et al.*, *Life Sci.* in press) showed that men had statistically greater concentrations of *p,p'*-DDT (0.0105 ppm) but lower concentrations of *o,p'*-DDT (0.0009 ppm) than women. Even though the differences were statistically significant ($P < 0.025$ and < 0.01, respectively), they may have been due to sampling.

Methods for the extraction of bound chlorinated insecticides and related materials in blood were also investigated.

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